



US009408558B2

(12) **United States Patent**
Wilson et al.

(10) **Patent No.:** **US 9,408,558 B2**
(45) **Date of Patent:** ***Aug. 9, 2016**

(54) **GAIT ANALYSIS SYSTEM AND METHODS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **14/961,489**

(22) Filed: **Dec. 7, 2015**

(65) **Prior Publication Data**

US 2016/0081590 A1 Mar. 24, 2016

Related U.S. Application Data

(62) Division of application No. 14/097,903, filed on Dec. 5, 2013, now Pat. No. 9,232,911, which is a division of application No. 12/851,614, filed on Aug. 6, 2010, now Pat. No. 8,628,485.

(51) **Int. Cl.**
A61B 5/00 (2006.01)
A61B 5/103 (2006.01)
A61B 5/11 (2006.01)

(52) **U.S. Cl.**
CPC **A61B 5/1038** (2013.01); **A61B 5/112** (2013.01); **A61B 5/6807** (2013.01); **A61B 5/7225** (2013.01)

(58) **Field of Classification Search**

CPC A61B 5/112; A61B 5/1038; A61B 5/6807; A61B 5/7225

See application file for complete search history.

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(57) **ABSTRACT**

Systems and methods for analyzing the gait of an individual are disclosed. The disclosed systems and methods can be configured to acquire data from a first array and a second array of sensors that are configured to be placed in a left and/or right shoe, respectively. The acquired data can be collected or separated into at least two separate gait phases for each array, compared to a baseline condition for each gait phase and categorized into one of at least two uniformity categories for each gait phase. Examples of collected and/or calculated data include pressure values, shear stress values and torque values. The analysis can be focused on both feet of a person, or focused on one foot. A graphical output showing at least one entire gait cycle based on the uniformity categories can then be generated.

20 Claims, 16 Drawing Sheets

